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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,792	10/07/2003	Usman Wakil	025013-0225	4797
23392	7590	05/03/2005	EXAMINER	
FOLEY & LARDNER 2029 CENTURY PARK EAST SUITE 3500 LOS ANGELES, CA 90067			LEE, WILSON	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/680,792

Applicant(s)

VAKIL ET AL

Examiner

Wilson Lee

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) 31-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 12 and 23 is/are rejected.
- 7) ☒ Claim(s) 2-11, 13-22 and 24-30 is/are objected to.
- 8) ☒ Claim(s) 31-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Remarks

Applicant elects group I of claims 1-30 with traverse.

Since it has been concluded that the pending application includes more than one separate distinctive and independent inventions, the restriction is therefore proper.

Further, burden may also arise from prosecuting multiple inventions in a single application. Such a type prosecution merely leads to complication in patentability determination that may ultimately sacrifices the quality of patentability determination. In view of this reason, a restriction imposed is clearly proper.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Objection

Claim 1 is objected because of the following informalities:

In claim 1, line 6, should --circuit-- be inserted after "logic"?

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 12, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lesea (4,415,839).

Regarding Claims 1 and 12, Lesea discloses a ballast (See Figure 5 and Col. 8, line 67 to Col. 9, lines 33 and Col. 10, lines 14-35) for a gas discharge lamp (12) comprising:

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- a switching section (24, 26) generating an AC drive current for driving a gas discharge lamp (12);
- a voltage controlled oscillator (72) supplying switching signals to the switching section (24, 26) to control the switching frequency of the switching section;
- VCO control logic circuit (504) supplying a VCO control signal to the VCO to control the frequencies of the switching signals supplied by the VCO in response to a lamp current feedback signal (58) and a lamp current control signal (510);
- A signal conditioner (502) generating the lamp current control signal (510) (through 664, 660, 656) such that the lamp current control signal (510) has a voltage corresponding to a pulse width of a pulse width modulated signal received by the signal conditioner (502); and
- A microcontroller (82) providing the pulse width modulated signal (through 508) to the VCO control logic circuit (504), wherein the microcontroller (82) controls the pulse width of the pulse width modulated signal to control the drive current supplied by the switching section (24, 26);
- A lamp section (12) coupled to the switching section (24, 26) to be driven by the AC drive current.

Regarding Claim 23, Lesea discloses a method of driving a gas discharge lamp (See Figure 5 and Col. 8, line 67 to Col. 9, lines 33 and Col. 10, lines 14-35), comprising:

- generating a pulse width modulated signal at a microcontroller (82);

- generating a lamp current control signal (from signal conditioner 502) having a voltage corresponding to the pulse width of the pulse width control signal;
- supplying the lamp current control signal (from signal conditioner 502) and a lamp current feedback signal (58) to a voltage controlled oscillator (72) control logic to generate a VCO control signal;
- supplying the VCO control signal to a VCO (72) to generate switching control signals; and
- supplying the switching control signals to a switching section (24, 26) control the frequency of an AC drive current supplied by the switching section (24, 26) to the lamp (12).

Allowable subject matter

Claims 2-11, 13-22, 24-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. O'Meara (6,667,585) discloses a fluorescent lamp brightness control process by ballast frequency adjustment. Katyl et al. (6,181,086) discloses an electronic ballast with embedded network micro-controller. Toyama (5,910,712) discloses a method and apparatus for reduced discharge lamp driver test time. Stevanovic et al. (5,910,709) discloses a fluorescent lamp ballast control for zero-voltage switching operation over wide input voltage range and over voltage protection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

5/2/05